

COTTONWOOD HEIGHTS

RESOLUTION No. 2021-56

A RESOLUTION APPROVING A CONSULTING AGREEMENT WITH T-O ENGINEERS, INC. FOR STORMWATER SYSTEM SERVICES

WHEREAS, the city council (the "*Council*") of the city of Cottonwood Heights (the "*City*") met in regular session on 16 November 2021 to consider, among other things, approving a consulting agreement (the "*Agreement*") with T-O Engineers, Inc. ("*Provider*") whereunder Provider would prepare an "as built" survey of the City's stormwater system, prepare a plan for raising that system's manholes, provide construction management for an anticipated contract with a third-party contractor to raise those manholes, and perform related work, all in accordance with applicable standards and the terms and conditions of the Agreement; and

WHEREAS, the Council has reviewed the form of the Agreement, a photocopy of which is annexed hereto; and

WHEREAS, after careful consideration, the Council has determined that it is in the best interests of the health, safety and welfare of the citizens of the City to approve the City's entry into the Agreement as proposed;

NOW, THEREFORE, BE IT RESOLVED by the Cottonwood Heights city council that the attached Agreement is hereby approved, and that the City's mayor and recorder are authorized and directed to execute and deliver the Agreement on behalf of the City.

This Resolution, assigned no. 2021-56, shall take effect immediately upon passage.

PASSED AND APPROVED effective 16 November 2021.

ATTEST:

By:

Paula Melgar, Recorder



COTTONWOOD HEIGHTS CITY COUNCIL

By:

Michael J. Peterson, Mayor

VOTING:

Michael J. Peterson

Yea ☒ Nay ☐

Douglas Petersen

Yea ☒ Nay ☐

J. Scott Bracken

Yea ☒ Nay ☐

Tali C. Bruce

Yea ☐ Nay ☒ Excused

Christine Watson Mikell

Yea ☐ Nay ☒ Excused

DEPOSITED in the office of the City Recorder this 16th day of November 2021.

RECORDED this 17 day of November 2021.

Agreement for Consulting Services

THIS AGREEMENT FOR CONSULTING SERVICES (this “*Agreement*”) is made effective 16 November 2021 by **COTTONWOOD HEIGHTS**, a Utah municipality whose address is 2277 East Bengal Blvd., Cottonwood Heights, UT 84121 (“*City*”), and by **T-O ENGINEERS, INC.**, an Idaho corporation whose address is 2175 West 3000 South, Ste. 200, Heber City, UT 84032 (“*Consultant*”).

RECITALS:

A. City desires to obtain from a qualified expert consulting services to perform an “as-built” survey of City’s storm water system, formulate a plan for raising that system’s storm water manholes, and providing construction management of an anticipated manhole raising contract with a third-party contractor, all in accordance with applicable standards.

B. Consultant regularly provides such services and submitted its proposal (the “*Proposal*”) to City on or about 17 August 2021. A copy of the Proposal is attached hereto as Exhibit “A.”

C. After reviewing the Proposal, City has determined to retain Consultant to provide the subject services.

D. By this Agreement, City desires to retain Consultant, and Consultant desires to be retained by City, to perform the subject services on the terms and conditions specified herein.

D. City and Consultant intend to identify herein the services to be performed for City by Consultant, the basis of compensation for such services, and to otherwise set forth their entire agreement concerning the subject services. Consequently, this Agreement shall supersede any and all prior or contemporaneous negotiations and/or agreements, oral and/or written, between the parties concerning the services to be provided under this Agreement.

AGREEMENT:

NOW, THEREFORE, in consideration of the premises, the mutual covenants and undertakings of the parties hereto, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereby agree as follows:

Section 1. **Scope of Services.** Consultant shall provide the services to City that are described in the attached Proposal as well as all ancillary and associated services as may be reasonably necessary or advisable to complement and complete the services described in the Proposal (collectively, the “*Services*”), all as contemplated by all applicable legal requirements and best practices. Subject to the foregoing, the Services shall include the following:

(a) **Phases.** The Services shall be divided into the phases, steps and work described in the Proposal.

(b) **Public Meetings.** Consultant shall attend such public meetings concerning the Services as City reasonably may direct. City shall schedule and advertise all public meetings or hearings. City may request Consultant to make a presentation concerning the Service at one or more public meetings in order to receive public input and direction from City. All reasonable and

final adjustments and amendments to the resulting deliverables as directed by City will be made by Consultant prior to final adoption/approval by City the resulting updated storm water master plan/capital facilities plan (the “Plan”).

(c) Schedule. It is anticipated that the Services will be completed by no later than 30 June 2022. Consultant shall comply with such performance schedule for the component Services as City reasonably may direct upon reasonable prior notice to Consultant.

(d) Deliverables. Consultant shall provide all deliverables identified in the Proposal, as well as such other documentation and deliverables as City reasonably may request.

(e) Other Services. Consultant shall perform other services and work as specified in the Proposal, or as may be mutually agreed to by the parties in writing.

If Consultant believes that any of the Services merit payment of any additional fee beyond the Fee (defined below), then Consultant shall so inform City in advance before undertaking any of such additional services, describing the need for such additional services and the not to exceed cost of providing them. If City desires Consultant to proceed with any such additional services, City shall so inform Consultant in writing. Consultant may not perform any additional services, or seek compensation therefor, without City’s prior written consent.

Section 2. **Performance of Services**. Except as otherwise provided in this Agreement, Consultant shall furnish all supervision, personnel, labor, materials, supplies and shall obtain all licenses and permits required for performance of the Services. The Services shall be performed at Consultant’s offices and other mutually-agreeable places.

Section 3. **Compensation; Invoices; Remittance**. For satisfactory performance, City shall pay to Consultant the maximum amount of \$176,250 as outlined in the Proposal (the “Fee”).

(a) Invoices. Consultant shall invoice City for the Services performed during each calendar month at the end of that month or as soon as practical thereafter. All invoices submitted to City shall contain references to this Agreement. Invoices shall detail the Services performed and shall contain copies of all supporting documents or proof of any expenditures on behalf of City, and otherwise shall be in sync with the stage of completion of the Services outlined in the Proposal. Invoices for any approved additional services also shall specify the person(s) performing such services, the hours worked, the applicable hourly rate(s),

(b) Questioned Charges. Any questions or objections by City concerning Consultant’s charges under an invoice for the any services shall be submitted within 30 days after City’s receipt of the subject invoice.

(c) Remittances. Subject to subsection 3(b), all invoiced amounts due for Services performed shall be paid by City within 30 days after City’s receipt of the subject invoice. If payment is not remitted or reasonably questioned to Consultant when due, Consultant shall be entitled to recover interest thereon at the rate of ten percent (10%) per annum from and after the date the remittance is due and payable.

Section 4. **Change in Level of Services.** City shall be freely entitled to modify (increase or decrease) the level of the Services hereunder by providing at least 15 days' prior written notice to Consultant of such change. Consultant's compensation shall be reasonably modified by City in consultation with Consultant in connection with any such change.

Section 5. **Suspension of Services.** City shall have the absolute right to terminate the Services at any time without cost or liability to Consultant as provided in this Agreement. City also may by written notice direct Consultant to temporarily suspend performance of any or all of the Services for a specified period of time. If such suspension is not occasioned by the fault or negligence of Consultant, this Agreement may be modified to compensate Consultant for extra costs reasonably incurred as a result of said suspension, provided that any claim for adjustment is supported by appropriate cost documentation and asserted within 20 calendar days after the date that City issues an order for resumption of the Services. Upon its receipt of any such suspension notice, Consultant immediately shall (a) discontinue the Services; (b) place no further orders or subcontracts in connection with the Services; (c) suspend all outstanding orders and subcontracts in connection with the Services; (d) protect and maintain the existing work and work-product in connection with the Services; and (e) otherwise mitigate City's costs and liabilities for the suspended areas of the Services.

Section 6. **Termination for Convenience.** City may terminate this Agreement, or any part hereof, at any time with or without cause prior to its completion by sending to Consultant written notice of such termination. Upon any such termination, City shall pay to Consultant the full amount due for all Services properly performed by Consultant as of the date of termination, excluding damages or anticipated profits on work not yet completed or performed.

Section 7. **Ownership of Designs and Drawings.** All documents (whether printed or stored on paper or as electronic, magnetic, or digital information) produced or collected by Consultant in its performance of the Services (including, without limitation, original drawings, estimates, specifications, field notes and data) (collectively, the "*Documents*") are and shall remain the exclusive property of City. Conditioned only on City's payment to Consultant of the amounts due hereunder, at the conclusion of the Services or any earlier termination thereof Consultant shall deliver to City all Documents, whether or not complete. Consultant may, at its expense, reproduce for its own records the Documents so supplied to City. Consultant may not disclose, sell, use, publish or display any Documents or other information collected or produced in connection with its performance of this Agreement without City's prior written consent.

Section 8. **Nondisclosure; Conflict of Interest.** Consultant shall not divulge to third parties without City's prior written consent any information obtained from or through City in connection with the performance of this Agreement. Unless waived by City, Consultant shall require its employees and subcontractors of any tier to adhere to the same covenant of nondisclosure. Consultant shall safeguard the confidentiality of any information obtained from or through City in connection with the performance of this Agreement to the same extent as Consultant safeguards the confidentiality of its own proprietary or confidential information. Consultant and its subcontractors shall not act as a consultant in any matters adverse to City.

Section 9. **Compliance with Laws.** Consultant shall at all times comply with all applicable federal, state and local laws, statutes, rules, regulations, and ordinances, including, without limitation, those governing wages, hours, desegregation, employment discrimination,

workers' compensation, employer's liability and safety. Consultant also shall comply with all applicable equal opportunity laws and regulations.

Section 10. **Patent and Copyright.** If Consultant's employees, officers, agents, subcontractors of any tier, or anyone of a like nature in the performance of the Services or as a result of performing the Services develop any trade secret, prepare any copyrighted material, make any improvement, originate any invention, or develop any process or the like (collectively, an "*Innovation*"), (a) such Innovation shall be the property of Consultant, but (b) Consultant shall grant or cause to be used for the benefit of City (or for City's own internal use) the Innovation for so long as City reasonably desires.

Section 11. **Independent Contractor.** Consultant shall perform the Services as an independent contractor, and all persons employed by Consultant in connection with this Agreement or the Services shall be employees of Consultant and not employees of City in any respect or for any purpose.

Section 12. **Assignment.** Consultant shall not assign this Agreement, or any part thereof, without City's prior written consent. Any attempted assignment in violation of this section shall be void from its inception.

Section 13. **Subcontracts.** Except for those subcontractors which are specified in the Proposal, Consultant shall not award any work to any subcontractor without City's prior written approval, which approval will not be given until (a) Consultant submits to City a written statement (containing such information as City may require) concerning the proposed award to the subcontractor, and (b) City has reasonably approved such proposed subcontract.

Consultant shall be as fully responsible to City for the acts and omissions of Consultant's subcontractors, and of persons either directly or indirectly employed by such subcontractors, in the same manner as Consultant is liable for the acts and omissions of its own employees. Consultant shall cause appropriate provisions to be inserted in all subcontracts to bind subcontractors to Consultant by the terms and conditions of this Agreement insofar as applicable to the work of subcontractors, and to give Consultant the same power to terminate any subcontract as City may exercise over Consultant under this Agreement. Nothing in this Agreement, and no course of dealing, shall create any contractual relationship between City and any of Consultant's subcontractors.

Section 14. **Accounting and Auditing.** Consultant shall keep accurate and complete records in support of all remuneration paid hereunder. City, or its audit representative, shall have the right at any reasonable time(s) following at least ten business days' prior notice to Consultant to examine, audit, and reproduce all records pertaining to costs, including but not limited to payrolls, employees' time sheets, invoices, and all other evidence of expenditures for the Services. Such records shall be available for one year after completion of the Services.

Section 15. **Non-Exclusive Rights.** Nothing in the Agreement is to be construed as granting to Consultant the exclusive right to perform any or all of the Services from time to time required by City.

Section 16. **Indemnification.** Consultant shall indemnify, save and hold harmless City (including its elected and appointed officers, employees, successors and assigns) from and

against any and all demands, liabilities, claims, damages, costs (including City's attorney fees) actions and/or proceedings resulting from Consultant's performance of the Services, whether such matters are based on simple negligence, conflict of interest, gross negligence, recklessness or intentional misconduct by Consultant (or any employees, subcontractors or agents of Consultant). In the event of a lawsuit brought against City as a result of the Services (or lack thereof), City shall notify Consultant of such lawsuit and afford Consultant the option of providing at Consultant's cost separate qualified legal representation to City (including its elected and appointed offices, employees, successors and assigns) that is reasonably acceptable to City. Consultant's failure to exercise its option to affirmatively defend City in such an action shall not excuse Consultant from responsibility to indemnify City from and against all liabilities, claims, damages, costs (including attorney fees) or other losses incurred by City in, or as a result of, such lawsuit, provided that the same are attributable to Consultant's negligent performance of the Services hereunder.

Section 17. **Insurance.** Without limiting any obligations of Consultant, Consultant shall, prior to commencing work, secure and continuously carry insurance in accordance with City's standard insurance requirements set forth on attached Exhibit "B", and shall furnish proof thereof satisfactory to City promptly when requested; provided, however, that all references in Section A of Exhibit "B" to (a) \$2,500,000 in liability insurance coverage of whatever type(s) is hereby reduced to \$2,000,000 in coverage; or (b) \$10,000,000 in excess liability coverage is hereby reduced to \$5,000,000 in coverage.

Section 18. **Professional Responsibility.** Consultant shall perform the Services using equal or higher standards of care, skill and diligence as normally provided by a professional in the performance of consulting services similar to those contemplated hereunder. Without limiting any other remedies available to City, if City believes that Consultant has failed to comply with such professional standards, City shall provide written notice to Consultant and the parties thereafter shall cooperatively work to determine what Services Consultant should promptly re-perform at Consultant's sole cost.

Section 19. **Examination of Work.** All Services shall be subject to examination by City at any reasonable time(s). City shall have the right to reject any non-compliant Services using the cooperative procedures specified in Section 18, above. Neither examination of the Services, lack of the same, acceptance of the Services by City nor payment therefor shall relieve Consultant from its obligations under this Agreement regarding the quality and accuracy of the Services.

Section 20. **Progress.** Consultant shall submit periodic written progress reports as reasonably requested by City. City or its agents or representatives may visit Consultant's offices at any reasonable time(s) to determine the status of the Services.

Section 21. **Conflict Resolution.** Except as otherwise provided herein, in the event of a dispute between the parties regarding the Services which is not disposed of by agreement, the resolution of the dispute shall be decided by City, which shall provide written notice of its decision to Consultant. Such decision by City shall be final unless Consultant, within 30 calendar days after such notice of City's decision, provides to City a written notice of protest, stating clearly and in detail the basis thereof. Consultant shall continue its performance of this Agreement during such resolution. If the parties do not agree, then the parties shall resolve the dispute pursuant to section 22 below.

Section 22. **Claims and Disputes.** Claims, disputes and other issues between the parties arising out of or related to this Agreement or the Services shall be decided by litigation in the Third Judicial District Court of Salt Lake County, Utah. Unless otherwise terminated pursuant to the provisions hereof or otherwise agreed in writing, Consultant shall continue to perform the Services during any such litigation and City shall continue to make payments to Consultant in accordance with the terms of this Agreement.

Section 23. **Notice.** Any notice required or permitted to be given hereunder shall be deemed sufficient if given by a communication in writing and shall be deemed to have been received (a) upon personal delivery or actual receipt thereof, or (b) within three days after such notice is deposited in the United States Mail, postage prepaid, and certified and addressed to the parties at their addresses specified above or such substitute or additional addresses as a party previously may have provided to the other parties through written notice.

Section 24. **City's Cooperation.** City will provide the following assistance to Consultant in connection with the Services:

(a) **Representative.** Designate a representative of City to act as Consultant's point of contact with respect to the Services.

(b) **Information.** Provide to Consultant access to all non-confidential information pertaining to the Services that is in City's possession or is reasonably available to City. Consultant shall not be responsible for errors or omissions in any City-provided information, nor for delays in completing the Services attributable to City's delay in providing required information.

(c) **Staff Assistance.** Such support of City's staff as City determines, in its sole discretion, to make available to Consultant.

Section 25. **Conflicts; Omissions.** In the event of inconsistencies within or between this Agreement, the Proposal or applicable legal requirements, Consultant shall (a) provide the better quality or greater quantity of Services, or (b) comply with the more stringent requirements, either or both in accordance with City's interpretation.

Section 26. **Additional Provisions.** The following provisions also are integral to this Agreement:

(a) **Titles and Captions.** All section or subsection titles or captions herein are for convenience only. Such titles and captions shall not be deemed part of this Agreement and shall in no way define, limit, augment, extend or describe the scope, content or intent of any part or parts hereof.

(b) **Pronouns and Plurals.** Whenever the context may require, any pronoun used herein shall include the corresponding masculine, feminine or neuter forms, and the singular form of nouns, pronouns and verbs shall include the plurals and vice versa.

(c) **Applicable Law.** The provisions of this Agreement shall be governed by and construed in accordance with the laws of the state of Utah.

(d) Integration. This Agreement constitutes the entire agreement between the parties pertaining to the subject matter hereof and supersedes all prior agreements and understandings pertaining thereto.

(e) Time. Time is the essence hereof.

(f) Survival. All agreements, covenants, representations and warranties contained herein shall survive the execution of this Agreement and shall continue in full force and effect throughout the term of this Agreement.

(g) Waiver. No failure by any party to insist upon the strict performance of any covenant, duty, agreement or condition of this Agreement or to exercise any right or remedy consequent upon a breach thereof shall constitute a waiver of any such breach or of such or any other covenant, agreement, term or condition. Any party may, by notice delivered in the manner provided in this Agreement, but shall be under no obligation to, waive any of its rights or any conditions to its obligations hereunder, or any duty, obligation or covenant of any other party. No waiver shall affect or alter the remainder of this Agreement but each and every other covenant, agreement, term and condition hereof shall continue in full force and effect with respect to any other then existing or subsequently occurring breach.

(h) Rights and Remedies. The rights and remedies of the parties hereto shall not be mutually exclusive, and the exercise of one or more of the provisions of this Agreement shall not preclude the exercise of any other provisions hereof.

(i) Severability. If any condition, covenant or other provision hereof is held to be invalid or void, the same shall be deemed severable from the remainder of this Agreement and shall in no way affect any other covenant or condition herein contained. If such condition, covenant or other provision shall be deemed invalid due to its scope or breadth, such provision shall be deemed valid to the extent of the scope or breadth permitted by law.

(j) Litigation. If any action, suit or proceeding is brought by a party hereto with respect to a matter or matters covered by this Agreement, all costs and expenses of the prevailing party incident to such proceeding, including reasonable attorneys' fees, shall be paid by the non-prevailing party.

(k) Exhibits. All exhibits annexed to this Agreement are expressly made a part of this Agreement as though completely set forth herein. All references to this Agreement, either in this Agreement itself or in any of such writings, shall be deemed to refer to and include this Agreement and all such exhibits and writings.

(l) Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, and all of which together shall constitute one and the same instrument.

DATED effective the date first-above written.

[Signature page follows]

CONSULTANT:

T-O ENGINEERS, INC., an Idaho corporation

By: _____

Its: _____

CITY:

ATTEST:

COTTONWOOD HEIGHTS

By: 
Paula Melgar, Recorder



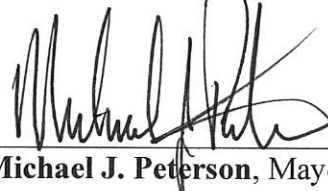
By: 
Michael J. Peterson, Mayor

Exhibit “A” to
Agreement for Consulting Services

(Attach Proposal)

Exhibit "B" to Agreement for Consulting Services

INSURANCE REQUIREMENTS FOR PARTIES CONTRACTING WITH THE CITY OF COTTONWOOD HEIGHTS

The contracting party shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damage to property which may arise from or in connection with the performance of the work hereunder by the contracting party, his agents, representatives, employees or subcontractors. The cost of such insurance shall be included in the contracting party's bid.

A. MINIMUM LIMITS OF INSURANCE.

The contracting party shall maintain limits no less than:

1. *Professional Liability*: \$2,500,000.00 combined single limit per occurrence for bodily injury, personal injury and property damage, including "tail coverage" for at least one year after completion of all services.
2. *Automobile Liability*: \$2,500,000.00 combined single limit per accident for bodily injury and property damage. "Any Auto" coverage is required.
3. *Worker's Compensation*: Worker's compensation limits as required by applicable law for all employees and other persons.
4. *Commercial General Liability*: \$2,500,000.00 combined single limit per occurrence for personal injury and property damage; \$2,500,000.00 annual aggregate. Broad Form Commercial General Liability is required (ISO 1993 or better). Personal injury, premises-operations, products-completed operation, independent contractors and subcontractors fire legal liability and, when appropriate, coverages for explosion, collapse and underground (XCU) hazards.
5. *Excess Liability*. \$10,000,000.00.

B. DEDUCTIBLES AND SELF-INSURED RETENTIONS.

Any deductibles (5% limit), self-insured programs or retentions must be declared to and approved by the city of Cottonwood Heights (the "City"). At the City's option, either: the insurer may be required to reduce or eliminate such deductibles or self-insured retentions as respect to the City, its officers, officials and employees; or the contracting party may be required to procure a bond guaranteeing payment of losses and related investigations, claim distribution and defense expenses.

C. NOTICE OF INCIDENT OR ACCIDENT.

The contracting party shall agree to promptly disclose to the City all incidents or occurrences of accident, injury, and/or property damage covered by the insurance policy or policies.

D. OTHER INSURANCE PROVISIONS.

The policies are to contain, or be endorsed to contain, the following provisions:

1. *General Liability and Automobile Liability Coverages.*

(a) The City, its officers, officials, employees and volunteers are to be covered as additional insured as respects: liability arising out of activities performed by or on behalf of the contracting party; products and completed operations of the contracting party; premises owned, leased, hired or borrowed by the contracting party. The coverage shall contain no special limitations on the scope of protection afforded to the City, its officers, officials, employees or volunteers.

(b) The contracting party's insurance coverage shall be a primary insurance as respects to the City, its officers, officials, employees and volunteers. Any insurance or self-insurance maintained by the City, its officers, officials, employees or volunteers shall be in excess of the contracting party's insurance and shall not contribute with it.

(c) Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the City, its officers, officials, employees or volunteers.

(d) The contracting party's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respects to the limits of the insurer's liability.

2. *Worker's Compensation and Employer's Liability Coverage.*

The insurer shall agree to waive all rights of subrogation against the City, its officers, officials, employees and volunteers for losses arising from work performed by the contracting party for the City.

3. *All Coverages.*

Each insurance policy required by this clause shall be endorsed to state that coverage shall not be suspended, voided, canceled by either party, reduced in coverage or in limits except after thirty (30) days' prior written notice (from the insurer) by certified mail, return receipt requested, has been given to the City.

E. ACCEPTABILITY OF INSURERS.

Insurance is to be placed with insurers with a Bests' rating of no less than A:VII, unless approved by the Manager.

F. VERIFICATION OF COVERAGE.

The contracting party shall furnish the City with certificates of insurance and with original endorsements effecting coverage required by this clause. The certificates and endorsements are to be signed by a person authorized by that insurer to bind coverage on its behalf. The certificates and endorsements are to be on forms provided before work commences. The City reserves the right to require complete, certified copies of all required insurance policies, with all endorsements, at any time.

G. SUBCONTRACTORS.

The contracting party shall include all subcontractors as insureds under its policy or shall furnish separate certificates and endorsements for each subcontractor. All coverages for subcontractors shall be subject to all of the requirements stated herein.



EXHIBIT B

SCOPE OF WORK for
GIS Up-Date Storm Sewer System Survey
Prepared for: COTTONWOOD HEIGHTS PUBLIC WORKS
Date: August 17, 2021

OVERVIEW:

This scope of work defines professional services to be performed by the consultant for the client regarding this project. The client/owner is Cottonwood Heights Public Works (Storm Sewer GIS). The client has requested a complete As-Built Survey of their Storm Sewer System along with a construction project to expose ~300 known storm drain points that are not currently accessible.

The survey portion of the project will require the survey and documentation of ~2300 known locations. The survey data will be integrated into the GIS feature classes as the work is completed. For the ~300 known points that are not currently accessible the consultant will develop a bid package and RFP to assist the city in selecting a contractor to expose and restore access to these locations, as well as provide construction management throughout the construction phase.

1.0 Restoring access

1.1 Prioritizing access restoration

To maximize the benefit from limited funds, T-O will develop a prioritization schedule of which manholes should be raised first to provide the best access to the overall system. This prioritization schedule will be developed using the missing manhole layer (provided by the city) along with anticipated percent pipe capacity from the masterplan, pipe size and other available information to develop prioritization criteria. This phase will include 2 virtual meetings with the city to discuss and refine the prioritization mapping. The final product from this phase will be a color map depicting the location and priority (high, med, low).

1.2 Bid Package and RFP

Using the map developed in phase 1.1, T-O will prepare exhibits and documentation for storm drain manholes needing maintenance. The manholes within the scope of this project are ones which have been paved over throughout the years. All of the manholes will need to be exposed and properly raised as part of the base bid. It is likely that some locations will require additional work. To control costs, the bid will contain alternate unit costs to replace lids, replace cone sections, repair additional asphalt, pipe cleanings, etc. The alternate bid prices will enable field staff to make quick decisions with known financial impacts as work progresses.



T-O Engineers will prepare an RFP with the bid package, lead a pre-bid meeting, and advertise the project in the appropriate venues and to potential contractors, lead a bid opening and evaluate the bids received. T-O will recommend an award, and work with the city and contractor on a final agreement.

2.0 Survey & GIS updates

2.1 Fieldwork

T-O Engineers will use the Salt Lake VRS to establish survey control for this project. (T-O) will use GPS Receivers (GPS) and Robotic surveying equipment to survey the surface elevation of every storm water structure. Using the existing City GIS system, T-O will plan survey routes to collect the data. Along each route additional structures will be located and surveyed; missing structures will be noted. For each point the following data will be collected and uploaded to the GIS system.

1	Two survey shots will be collected on each grate and one on each manhole cover
2	1 survey shot at the bottom of the structure.
3	Diameter and invert of all incoming & outgoing pipes
4	Diagram depicting the elevations and directions of all visible pipes.
5	Pipe material when possible

If lids cannot be removed or the structure is full of debris that will be noted in the GIS. On major roads, T-O staff will coordinate with public works to provide traffic control, with at least 48 hours' notice. Where lids cannot be removed, or the inlets need to be cleaned to properly survey T-O will notify the city so they can be repaired / cleaned and resurvey 2 to 3 days later.

2.1 GIS Data Points

The GPS points and diagram will be uploaded daily to our GIS team where the sketch information will be used to populate invert elevation, pipe size and material type. Where noted, missing structures or filled with debris structures will be mapped and reported to the city. At the conclusion of the project all GPS points, diagrams (as images), shape files will be provided to the City.

3.0 Construction management for access restoration

Construction oversight for this type of project is complicated by many variables that cannot be known in advance. If we are able to utilize the field survey crew to also provide construction oversight for the access restoration project, we anticipate reducing the overall travel time as well as the total hours needed for the project.



Assuming travel is budgeted in the survey portion of the work, an estimated 250 inspection hours will be needed, ~1 hour per location, In addition to 3 months of change orders and pay request (3), and coordination with the city. We would propose a budget of \$50,000. Depending on the speed in which the contractor can complete the work and the extent of the work completed it is anticipated this value may need to be adjusted.

ESTIMATED FEE:

We propose an time and materials contract for all phases except the field survey where the cost per point in proposed as shown below.

1.1 Prioritizing access restoration	\$4,500
1.2 RFP & Bid package	\$21,250
2.0 Survey & GIS updates	
GPS survey point(s), structure sketch, Shapefile update	\$43.00 per structure
GPS survey point(s) (w/ traffic control)	\$75.00 per structure
GPS survey point(s), note structure is filled with debris or inaccessible	\$20.00 per structure
Missing or unavailable structure	\$15.00 per structure
Based on the GIS database we estimate 50 structures may require traffic control. Assuming the remaining 2250 structures are not obscured, the costs are as follows:	
50 points @ \$75 per point + 2250 points @ \$43 per point	\$ 100,500
3.0 Construction Management	\$ 50,000
Total	\$176,250

TIME TO COMPLETION

Prioritization and bid documents will be available within 90 days of the notice to proceed. Field survey and related GIS work will be dependent on the contractor's schedule but is estimated at 120 days from when the contractor begins to expose access points. Complete GIS updates using the field survey will be complete 30 days after the survey is complete. It is estimated ~4 days of traffic control will be required for the survey portion of the project.

Assumptions and Exclusions:

- **Surveyors will require the client to supply traffic control at all roadways that would present a hazard to the public and to the surveyors.** This effort will be condensed to locations determined as the survey work progresses and surveyor will build a list of locations to be surveyed in sequence which is estimated to be 50 locations. After traffic control measures are in place it will take the surveyor approximately 20 minutes to gather the needed surveyed location and dip measure inverts and verify pipe material and diameter size of pipe.



- Contractor exposing the buried access points will work concurrently with the survey portion of the project to reduce overall travel time. If contractor delays or scheduling conflicts occur additional budget maybe required.
- An attempt to locate “Paved-Over” Storm Structures will be performed by the Surveyor (and marked with paint) and a list of paved over structures will be compiled and the locations supplied to client so they may add to the list of locations to expose at the city’s discretion.